hydraulic fracturing in the news

Beth Wagner to: Brian Graves, Ken-E Johnson, Michael Bechdol, Michael Overbay, Mike Frazier, Ray Leissner, Susie McKenzie, Jessica Duggan, David Parker, Philip Turner, Rob — 10/30/2012 12:59 PM

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Hydraulic-Fracturing-Study-Inglewood-Field10102012.pdf

Gas drilling experts named top conservationists

Daily Star, The (Oneonta, NY) - Monday, October 29, 2012
Author: Staff Report, The Daily Star
A pair of area experts on the science behind natural gas drilling have been selected as co-recipients of the 2012 OCCA Conservationist of the Year awards.

The Otsego County Conservation Association announced that Louis W. Allstadt and Dr. Ronald Bishop are being honored “for their diligence in providing industry- and science-based information to the public on the possible environmental impacts of high-volume horizontal hydrofracturing for natural gas,” according to a media release.

OCCA will also present a Special Recognition for Environmental Advocacy to the Middlefield Neighbors.

Award recipients will be honored at OCCA’s Annual Dinner, to be held Nov. 16 at The Tryon Inn in Cherry Valley.

“This year’s awards reflect the diversity of voices in the community working to educate Otsego County residents with regard to potential gas drilling impacts and to safeguard the environment,” OCCA Executive Director Darla M. Youngs said in the release.

Otsego County Soil and Water Conservation District Manager Scott Fickbohm and Les Hasbargen of SUNY Oneonta’s Catskill Headwaters Research Institute will give a two-part keynote presentation titled “The Importance of Baseline Monitoring in the Protection of Water Resources.”

Fickbohm will begin by outlining the importance of and need for baseline surface water quality monitoring relative to potential gas drilling in Otsego County. Hasbargen will talk about water well chemistry in Otsego County, and SUNY Oneonta’s ongoing campaign to characterize the chemistry of private drinking

water wells in Otsego County.

OCCA Board President Vicky Lentz will follow the keynote presentation with an update on OCCA's groundwater testing initiative, "What's In Our Water?," which addresses the need for both characterization and legal documentation and protection of Otsego County's groundwater resources.

For the second year, OCCA's Annual Dinner will include a silent auction to benefit OCCA's programs to protect and preserve the environment. Doors will open at 5:30 p.m. for the preview. Items must be paid for at the end of the evening by cash or check. Reservations, at $35 per person, are due Nov. 9; for information, email admin@occainfo.org.

Otsego County's oldest environmental conservation organization, OCCA is a private, nonprofit membership group dedicated to promoting the appreciation and sustainable use of Otsego County's natural resources through education, advocacy, resource management, research, and planning. For more information, call 547-4488 or visit www.occainfo.org.

Polis, Hinchey Urge Environmental Assessment of Natural Gas Exports - Rep. Jared Polis (D-CO) News Release
Government Press Releases (USA) - Monday, October 29, 2012
Washington, Sep 26 -

With experts stating that increased liquid natural gas (LNG) exports will expand the use of hydraulic fracturing (or " fracking ") in gas drilling, Congressman Jared Polis (CO-02) and Congressman Maurice Hinchey (NY-22) wrote to U.S. Energy Secretary Steven Chu today urging the completion of an Environmental Impact Statement before approving LNG exports. Polis and Hinchey's letter was signed by 18 of their colleagues.

According to the Energy Information Administration, 63 percent of the export demand for LNG would be met by increased production, 85 percent of which involves production from unconventional techniques, such as fracking . Fracking in densely populated areas would further threaten families and homes with cancer-causing pollution and noise.

Signers include: Polis, Hinchey, Raul Grijalva (AZ), Bob Filner (CA), Charles Rangel (NY), John Olver (MA), Barbara Lee (CA), Gerald Connolly (VA), Pete Stark (CA), Jose Serrano (NY), Paul Tonko (NY), Betty McCollum (MN), Chellie Pingree (ME), Sam Farr (CA), Michael Honda (CA), Janice Schakowsky (IL), Carolyn Maloney (NY), Dennis Kucinich (OH), Steven Rothman (NJ), and Steve Cohen (TN).

The text of the letter follows.

Dear Secretary Chu:

As the Department of Energy's Office of Fossil Energy (DOE/FE) considers proposals to export liquefied natural gas (LNG), we urge the DOE/FE to consider the potential environmental impacts of increased U.S. gas production pursuant to the National Environmental Policy Act (NEPA). Specifically, we request that the DOE/FE prepare an Environmental Impact Statement (EIS) to determine how LNG exports may potentially increase environmental risks in communities where natural gas is extracted.

We are concerned that exporting more LNG would lead to greater hydraulic fracturing , or " fracking ," activity thus threatening the health of local residents and jobs. For instance, increased natural gas production in communities across the nation could negatively impact farmers, residents, and local property values. The potential benefits from increased trade should be weighed against the increased health costs of additional fracking .

Under NEPA, "all agencies of the Federal Government" must prepare an EIS for every "major Federal action significantly affecting the quality of the human environment." Even though exporting nearly one-third of our domestic gas production certainly constitutes a major Federal action, the DOE has not yet conducted an EIS. A comprehensive EIS is essential to understanding the upstream public health and

environmental effects resulting from increased domestic fracking . Further, an EIS ensures that decision-makers are fully analyzing the environmental risks posed by exporting LNG.

Before issuing any additional permits for the construction of LNG export facilities, we respectfully request that the DOE/FE complete a comprehensive EIS. Such a review would inform your agency's decision and address the environmental and health impacts in our communities that may result from the opportunity to increase LNG exports.

Read this original document at: http://polis.house.gov/news/documentsingle.aspx?DocumentID=310078

Man-made quakes by drilling and fracking new report
New Orleans Examiner (LA) - Monday, October 29, 2012
Drilling wells can cause earthquakes, that is, human-made quakes, according to a new study that says the strongest quakes are associated with deep-injection wastewater disposal wells. Experts also now agree fracking can cause quakes, both of interest regarding the increase in quakes throughout the country.

A new study report about man-made earthquakes by drilling and fracking is of special interest regarding the Bayou Corne's sinkhole disaster area in Assumption Parish, a potential new south Louisiana catastrophe.

Human-made activity triggers quakes

Environmental modifications (ENMOD) by drilling even simple water wells is directly linked to man-made seismic activity, according to a new study.

"Understanding how human-made activity triggers quakes" is important, Cornell University geophysicist Rowena Lohman recently said, referring to what the UN calls environmental modification techniques.

"'Environmental modification techniques' refers to any technique for changing - through the deliberate manipulation of natural processes - the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space," states the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques. (United Nations, Geneva: 18 May 1977)

Humans dump hazardous waste into Class II injection wells to save money for companies that are changing the dynamics, composition and structure of the Earth.

Near Louisiana's Assumption Parish giant and expanding sinkhole, Houston-based Texas Brine company had been authorized by the Louisiana Department of Natural Resources (LDNR) to inject into the company's leased well in Napoleonville Salt Dome, hazardous waste including radioactive waste from oil and gas industry operations.

The well had problems in early 2011, was sealed and abandoned. After two months of locals experiencing seismic activities and observing methane bubbles percolating in nearby bayous, a large sinkhole emerged and has been expanding almost weekly ever since, with chunks of land and swamp trees falling into it. It is now the size of five football fields.

Seismometers picked up thousands of earthquakes (being called "tremors") in the Assumption Parish sinkhole disaster area since June, according to seismologist Dr. Stephen Horton.

Earthquakes felt in the parish's Bayou Corne, Grand Bayou and Pierre Part communities, each of which are over the 1-mile by 2-mile Napoleonville Salt Dome, were stronger than usual last week. The seismic activity was recorded in the vicinity of Texas Brine's waste cavern, now known to be breached, in the salt dome that is also collapsing. Now, the outer edge of the salt dome is "gone" after a "frack-out" occurred, according to officials last week.

"Seismic issues have most commonly been linked to injection wastewater disposal wells, the accepted disposal method for wastewater generated from fracking ," the Times reports,

Strongest earthquakes are associated with deep-injection wastewater disposal wells, with magnitudes in central and eastern United States around magnitude 5 or less, according to David McIntyre, public relations officer for the U.S. Nuclear Regulatory Commission (NRC) this weekend.

A deadly quake in Spain last year was linked to area farmers drilling deeper and deeper wells to water crops, the study reports.

Nine people died and nearly 300 were injured when a 5.1-magnitude quake hit the city of Lorca in May last year. Scientists found a fault running near a basin was weakened by 50 years of extracting groundwater in the area.

In 2011, a 4.0-magnitude earthquake in Youngstown, Ohio was linked to an injection well operated by D&L Energy.

According to an August 2011 Oklahoma Geological Society report, nearly 50 quakes in Garvin County, Okla. were linked to a nearby fracking well. They registered from 1.0 to 2.8 on the Richter scale, most within about two miles of the well.

“An important distinction in the case of induced seismicity or earthquakes are generally those cases where there are underground Class II injection wells,” said Mark Engle, a U.S. Geological Survey research geologist.

"Class II injection wells accept waste specifically from oil and gas production, he said.

“There are tens of thousands of injection wells in the United States. So in the case of induced seismicity, these are wells that are taking in fluid constantly, injected with fluids for a period of time – months, years, decades.”

"With injection wells, fluid can migrate into nearby fractures and fault zones that relieves pressure inside the fault and allows slippage to occur," Engle said.

“This is a very different process in general than hydraulic fracturing ,” he said, explaining that it is fracking , but the fluids are then pulled out.

“You do inject fluid (in fracking) for a period of time, but then it’s essentially pulled back out," said Engle.

[See: Sinkhole state-ordered fracking -type process might be causing quakes]

Fracking can also cause small-magnitude earthquakes, experts say.

“NRC is aware of research linking hydraulic fracturing with small to moderate earthquakes,” he said.

According to the NRC, frack quakes would not be high enough magnitude that would likely disrupt or damage a nuclear power plant.

Drilling wells are more likely to cause earthquakes more than fracking , according to Engle.

“To the best of my knowledge, there has not been a link to hydraulic fracturing and a sizeable earthquake, as opposed to injection wells,” Engle said.

In April, a USGS study report showed oil and gas drilling might explain the sharp increase in mid-United States earthquakes. The rate jumped sixfold from the late 20th century through 2011.

The USGS research team reported that those changes were "almost certainly man-made."

It is possible that injected fluids change friction and stickiness of minerals on fault lines. Another concept is they change below-surface pressure because the fluid is trapped and builds, and then "sets off something that's about ready to go anyway," Lohman said.

In early October, three unusual quakes shook a west Dallas suburb. The quake was linked to wastewater disposal from local hydraulic fracturing operations, according to a geophysicist who has studied earthquakes in the region.

“I don’t like it one bit," said Jimmy Taylor, a jolted Dallas suburb resident. "We never had them before until they started doing the fracking in the area.”

ENMOD conspiracies, investigations, lawsuits, federal charges

In 2006, the Railroad Commission fined a Wise County injection well operator for dumping water from a firefighting operation and “25 barrels of an unknown chemical” into an injection well.

In 2007, the owner of a hazardous waste transport company and his operations manager faced federal charges for their roles in a conspiracy to illegally transport and dispose of hazardous waste underground.

"Their alleged misuse of an underground injection well may have contaminated drinking water," reported Environmental News Service.

The men were arraigned in U.S. District Court in Houston and charged with 14 felony counts including conspiracy, violating the Safe Drinking Water Act and the Resource Conservation and Recovery Act that regulates storage, transportation and disposal of hazardous wastes.

That investigation was conducted by EPA's Criminal Investigation Division, Texas Environmental Task Force, Houston Police Department, and the Department of Transportation, Office of Inspector General. The prosecution was managed by the Justice Department's Environmental Crimes Section.

Lawsuits have been and more are being filed against entities involved in the Bayou Corne sinkhole disaster.

OMU study includes natural gas impact

Owensboro Messenger-Inquirer (KY) - Monday, October 29, 2012
Author: Steve Vied ; Messenger-Inquirer
As Owensboro Municipal Utilities attempts to chart a course for itself in the complicated world of energy marketing, made even more complicated by competition from low-cost natural gas, a comprehensive study of OMU's management and methods is under way, and the impact of natural gas will be a large component of that study.

Outside consultant Science Application International Corp., according to its proposal to OMU and the city of Owensboro, seems aware of the impact low natural gas prices are having on coal burners like OMU.

Under "Understanding of Project" in its proposal, this is what SAIC says about natural gas: "While increased production and natural gas reserves have had a welcoming effect of lower prices, decreased CO2 contributions and increased reliability/resilience of the domestic energy industry, it has had negative effects on traditional energy assets such as coal-fired generation and natural gas pipeline companies. Natural gas is quickly becoming the predominant fuel of choice, and plants are quickly switching into natural gas and out of coal."

OMU, which began selling electricity on the open wholesale market in 2010, has been pummeled financially by low prices on that market, substantially caused by the low cost of natural gas, which has been made abundant by fracking technology that allows gas to be recovered from deep-shale formations previously unrecoverable.

"The impact to coal assets has been dramatic, and we are now seeing a coal-fired generation whose value has deteriorated significantly," the SAIC proposal stated. "For instance, in early April of 2010, when gas prices showed their lowest level as of late, natural gas prices were consistently displacing coal-fired base load generation. Forward prices for natural gas, coal and electricity for that time frame made these coal assets clearly uneconomical. Finally, contracting (or selling) the output of coal assets made it difficult to justify the value of these assets."

The price of natural gas has rebounded slightly since the spring, but the price of wholesale electricity has been slow to respond accordingly, OMU General Manager Terry Naulty told the OMU board earlier this month. At that meeting, OMU officials said the utility had adopted a new strategy of curtailing its sales to the wholesale market during the overnight hours when prices are especially low.

SAIC (Science Application International Corp.) was one of eight consulting companies that submitted bids to perform a review of increases in OMU's energy cost adjustment (ECA) and environmental control cost adjustment (ECCA). It also will perform a more comprehensive study of OMU's entire electric operations as a second phase, to include OMU's annual cash transfer to the city's general fund and power marketing in the face of revenue shortages from those sales.

Working together, the city and OMU decided that SAIC was the most qualified to perform the study, at a cost of not more than $196,000, with the city and the utility splitting the cost.

The ECA and ECCA are amounts added to customers' electric bills to cover variable costs associated with fuel use to generate electricity at the coal-burning Elmer Smith Station power plant and to comply with environmental regulations at the plant. The SAIC study will look at "justifying the increase and cost of each," Naulty said earlier.

According to Naulty, the ECA and ECCA phase of the study should be completed next month, but the results of the second phase will not be completed until at least April at the earliest, he said. City Attorney Ed Ray said the results may not be ready until May or June. The study, proposed in May by the city, was prompted when the City Utility Commission, the governing board of OMU, approved a sharp, two-phased jump in the ECA, the first of which is already in place. The second phase is due in January. The first phase of the increase — which cost consumers an average of $4.69 a month — took effect in July. The second phase will add another $4.69 a month to the average bill if it takes effect. The increases amount to a 9.6 percent jump in the average residential customer bill.

Mayor Ron Payne said earlier this month that the time and money invested in the study is justified.

"This is going on with utilities all over the country," Payne said. "We're not doing something that is not being done in a lot of other places. It could have a significant impact on ratepayers. Should we use more natural gas and less coal?"

Jonathan Schaefer, senior project manager, utility consulting services, will be SAIC's project manager for the OMU study. He has 18 years of electric utility experience, according to the company. His office is in Orlando, Fla. Five other SAIC employees are assigned to the study; two for rates and financial analysis, two for power supply and risk management and one for organizational planning.

SAIC is a Fortune 500 company with annual revenue of $11 billion. Ray said SAIC's ability to draw on the knowledge of many in-house experts will be valuable as it studies OMU.

"I think the committee's consensus was that SAIC had the best combination of understanding the scope of the study, meeting the desired budget and the ability to meet our deadline, particularly as it relates to the ECA and the ECCA, because something needs to be done on those right up front," said Ray.

SAIC's experience with municipal utilities as opposed to cooperatives and investor-owned utilities was helpful, Ray said.

Steve Vied, 691-7297, svied@messenger-inquirer.com

SUPERSTAR OF NATURAL GAS - WITH THE MARCELLUS SHALE , PA. IS BECOMING A RESPONSIBLE ENERGY CAPITAL

Pittsburgh Post-Gazette (PA) - Monday, October 29, 2012
Author: Michael Krancer / Patrick Henderson
Recent reports from Standard & Poor's and ITG Investment Research show the amount of recoverable gas in the Marcellus Shale play may be much greater than any previous government estimate. This is good news. Real American energy security and a real force in American job growth are available to us right now -- if we continue to make the right decisions to obtain and use what we have right here.

Both studies confirm that Pennsylvania's Marcellus Shale formation is the global superstar of natural gas formations. The Marcellus Shale will help make Pennsylvania the energy capital of the nation and spark the rebirth of our petrochemical and manufacturing base.

Production from Marcellus wells is exceeding expectations, and some of the wells are among the most productive in the world. We already have 240,000 jobs related to our oil and natural gas extraction activities. When it comes to production numbers, Standard & Poor's own words confirm that this is a "mere drop in the bucket" of the Marcellus' full potential.

These reports also say the potential natural gas liquids recoverable from the Marcellus are proportionally higher than any other shale gas formation. This is terrific news for Pennsylvania, validating Royal Dutch Shell's announcement that it is exploring the construction of an ethane cracker facility in Beaver County, a project that would account for 10,000 jobs in the construction phase alone.

Also reported is a dramatic and historic change in the direction of natural gas flows in America. Flows have always been from the west or southwest United States to the east. Not anymore. Pennsylvania became a natural gas exporter in 2010 and is perfectly located to be the supplier to the tremendous growth markets of the northeastern United States.

This new energy revolution is also being seen in Philadelphia. Refineries that were just recently pronounced dead have new life -- in no small part because of hydraulically fractured, domestic oil and natural gas. The result is thousands of jobs and cleaner air from the use of natural gas and lower-sulfur domestic Bakken crude oil at the refineries

Pennsylvania oversees this development responsibly under its effective oversight and comprehensive set of laws and regulations. Through Act 13, Gov. Tom Corbett and the Legislature have not only enhanced environmental protection standards but also put in place a per-well impact fee, with an initial distribution of $204 million to Pennsylvania municipalities and commonwealth agencies.

From encouraging wastewater recycling to one of the most progressive hydraulic fracturing fluid disclosure laws in the nation, the state's oil and gas program assures responsible, protective development of natural gas. Pennsylvania has more than doubled the number of oil and gas inspectors, who have conducted more than 20,000 inspections just this year.

Every Pennsylvanian is already benefiting from the Marcellus Shale. We are only at the beginning of building Pennsylvania into the energy center of the world and the jobs center of the country.
Memo: Michael Krancer is secretary of the Pennsylvania Department of Environmental Protection, and Patrick Henderson is the governor's energy executive.

Study Highlights Enormous Economic Impact of Unconventional Oil and Gas

Targeted News Service (USA) - Monday, October 29, 2012
OAK BROOK, Ill., Oct. 29 -- The Associated Equipment Distributors issued the following industry news:

A new study by IHS Global Insight, a leading research company, finds that unconventional oil and natural gas activity (horizontal drilling and hydraulic fracturing) in the United States will spur more than $5.1 trillion in capital expenditures between 2012 and 2035. Over the next 23 years, these activities are expected to contribute enormously towards the U.S. economy - and the equipment industry.

Table omitted to view click here:http://www.aednet.org/aednews/index_full_story.cfm?id=10928934

The extraction methods analyzed are capital intensive, generating lots of economic activity. The survey finds that equipment accounts for 24 percent of well site infrastructure capital expenditures and nearly 50 percent of revenues generated from the oil production are spent on construction, fabricated materials, and heavy equipment.

The report notes that, as the amount of oil produced through conventional and deep-water methods of extracting oil decreases over the next 23 years, unconventionally extracted oil production will continue to grow, becoming the most productive method by 2015.

'Sand rush' could spread to Lansing area

Telegraph Herald (Dubuque, IA) - Monday, October 29, 2012
Author: The Associated Press
NEW ALBIN, Iowa - Opposition is rapidly mounting to a proposal to mine frac sand in Allamakee County.

"Mining interests are coming at us like a runaway bulldozer going 100 mph," said Ric Zarwell, of Lansing, leader of the Allamakee County Protectors, a growing cadre of local residents opposed to a proposal by a Minnesota firm to mine sand southwest of Lansing, near the Mississippi River.

Zarwell said it's an extension of the "sand rush" under way in neighboring Wisconsin and Minnesota, where scores of mines are extracting the specialized sand used in hydraulic fracturing - the process by which water, silica sand and chemicals are injected under high pressure into underground shale deposits to release otherwise inaccessible oil and natural gas.

Zarwell said local opponents object to the removal or defacement of scenic hills, as well as the noise, silica dust and heavy traffic associated with silica sand mining. They also worry that site erosion and sand processing will pollute local streams and groundwater, he said.

"It's just sand," said Rick Frick, of Houston, Minn., the founder of Minnesota Sands, the firm pursuing at least three mining leases in northeast Allamakee County.

"It's strictly the choice of the landowner," Frick said. "They call me to test their sand. I don't push anybody. It's up to them if they want to sell their sand."

Frick's company has applied for a special-use permit to mine silica sand on an 11-acre site in the Sand Cove area near the Upper Iowa River about 5 miles southwest of New Albin. A Board of Adjustment hearing on the permit, which had been scheduled for Wednesday, has been postponed while the company works with County Engineer Brian Ridenour to ascertain road improvements needed to handle the proposed mine's heavy truck traffic, said Allamakee County Zoning Administrator Tom Blake.

A spokesman for Minnesota Sands, Geoff Griffin, chief executive officer of GGG Inc., a mining engineering firm in Chatfield, Minn., said he had been "looking at numerous sites in Allamakee County, doing borings all over the area."

In Wisconsin, the nation's leading frac sand state, more than 80 mines and processing facilities are either operating or under construction, with an additional 20 in the proposal stage.

The Allamakee County opponents will likely ask the county supervisors to approve a moratorium to buy time to formulate rules to protect the environment as well as public health and welfare.

They expressed their concerns at an Oct. 14 meeting attended by 150 people in New Albin.

Economist for oil lobby blasts fracking critics

News & Observer, The (Raleigh, NC) - Sunday, October 28, 2012
Author: John Murawski ; Staff Writer John Murawskijmurawski@newsobserver.com

DURHAM John Felmy, chief economist of the nation's politically formidable oil-and-gas lobby, ticks off a litany of things fracking critics get wrong, or don't get at all.

Felmy, who makes one or two public presentations weekly for the Washington-based American Petroleum Institute, says that fracking foes are motivated by a misguided rejection of fossil fuel. And they can be downright dangerous.

He mentions the death threats and a recent physical assault that energy industry speakers have been subjected to as the nation's debate over fracking has flared up. He sees a continuation of that pattern in last week's protest by Croatan Earth First activists, who chained themselves to revolving doors at the N.C. Department of Environment and Natural Resources headquarters in Raleigh.

Felmy, in the area last week to speak at a conference of the Association for Corporate Growth, promoted the virtues of natural gas as an affordable, cleaner-burning domestic energy resource. Seated in the lobby of the SpringHill Suites hotel in Durham, Felmy for more than an hour defended the industry's safety record and blasted opponents for disseminating disinformation.

"It's wonderful. I hope it happens here," Felmy said of fracking . "This notion that it is some kind of Frankenstein technique is just preposterous."

Fracking , industry shorthand for hydraulic fracturing , is illegal in North Carolina. But the state legislature this past summer cleared the way toward legalization by creating the N.C. Mining & Energy Commission to write fracking regulations and studies. When the commission's work is complete, in several years, the legislature is expected to revisit the issue and vote on allowing energy companies to start pulling drilling permits in this state.

Felmy acknowledges that natural gas exploration has caused well blowouts and chemical spills, but he says the accidents are greatly exaggerated and must be viewed in the context of thousands of wells drilled safely.

Public officials in other states have tried to pass town ordinances restricting or banning fracking . The industrial process is noisy and disruptive, clogging local roads with truck traffic and spewing fumes from generators and compressor stations.

This state's regulations-in-progress are a flash point for fracking supporters and opponents because fracking is largely unregulated at the federal level and oversight is up to individual states. North Carolina's antiquated energy laws date back to the 1940s and must be completely revamped.

"Some boosters of fracking want to keep regulations at a minimum to encourage development," said Molly Diggins, who directs the North Carolina office of the Sierra Club. "If you make the bar low enough, you are essentially inviting wildcatters in."

Felmy doesn't see anything wrong with wildcatters, and suggests they play a valuable role in the industry. That's especially true at a time that drillers in other parts of the country are operating at a loss or pulling out amid historically low natural gas prices.

Felmy said the history of the energy industry has repeatedly shown that speculators will rush in where others fear to drill.

He noted that one factor favoring energy exploration in North Carolina is the low barrier to entry. Land leases in Lee County, considered the state's natural gas epicenter, have gone for as low as several dollars an acre, compared with several thousand dollars an acre in Pennsylvania.

At the current cost of natural gas, he said, North Carolina's estimated 1.7 trillion cubic feet of natural gas is worth at least $7 billion.

"Anything that begins with billion - that's pretty big," Felmy said. "If you look at those stakes, there are smaller companies that have made it work, and they get bought out for a lot of money."

'Wet' vs. 'dry' gases

But North Carolina's natural gas resource could be worth a lot more because of a phenomenon known as "wet" gas. "Wet" gases - ethane, butane and propane - are worth up to five times as much on energy markets than methane, a "dry" gas that is the primary component of natural gas.

The liquids, also called condensates, contain more energy than methane. The fluids are also easier to transport because they can be moved by tanker truck without requiring the construction of costly pipelines, said Kenneth Taylor, a geologist with the N.C. Geological Survey.

Based on hundreds of core samples and cuttings, geologists believe the state has a combination of oil, wet gas and dry gas, Taylor said. North Carolina's gas is believed to be concentrated around Lee, Moore and Chatham counties.

While acknowledging risks, Felmy lamented the objections frequently raised to fracking - that it destroys communities, pollutes drinking water and leaves a trail of woe.

"It's controversial because people make up a lot of stuff," Felmy said. "It's frustrating."

Murawski: 919-829-8932 Caption: Felmy

YOUR OPINION A thorough health study of fracking must be done - YOUR OPINION
Staten Island Advance (NY) - Sunday, October 28, 2012
The "review of potential public health effects of [hydraulic] fracking " about which New York State Department of Environmental Conservation Commissioner Joseph Martens speaks is not the health-impact assessment (HIA) needed to assure our health is protected against this inherently-contaminating drilling process for gas.

An HIA, a scientific study, is done in advance of approval of permits, and gives the public the ability to participate in hearings, meetings, etc. It would also focus on the most vulnerable: including infants, children, pregnant women and the elderly. The gas and oil industry would certainly not be the only participants in an HIA: Findings from independent experts from multiple disciplines are necessary to assure that the health of New York City and upstate New Yorkers is protected.

New York City is not protected. Our air quality will be impacted as we are downwind from upstate; our milk and produce will be compromised by the fracking chemicals known to migrate into the ground; our state will become an industrialized wasteland, affecting the very reservoirs from which we get our most precious resource: Our water.

We ask that all sitting state elected officials assure us that an unbiased health impact study is going to be performed before this energy-intensive process destroys our environment and health.

LOOKUP CARLTON CHEW WEST BRIGHTON [The writer is the co-founder of New Yorkers for Clean Water.]

Tax break debate: Tulsa think tank questions Oklahoma 's credits, rebates for oil and gas industry
Journal Record Legislative Report (Oklahoma City, OK) - Tuesday, October 23, 2012
Author: Sarah Terry-Cobo
A Tulsa-based think tank is calling for an end to state tax credits and rebates used by the oil and gas industry for horizontal drilling and other activity. The left-leaning Oklahoma Policy Institute on Tuesday released a report, “Unnecessary and Unaffordable: The Case for Curbing Oklahoma’s Oil and Gas Tax Breaks,” arguing that the oil and gas industry accrued $645 million in rebates and credits in the last three years. The rebates paid on gross production taxes included horizontally drilled wells, 3-D seismic work and deep wells, among other things.

David Blatt, director of the OPI, said as revenue for the state's budget deteriorates, revenue from gross production taxes becomes more crucial to fund state services, such as roads, bridges and schools. "These tax breaks may once have been justified because horizontal drilling was a new and innovative practice," Blatt said. "But now, it has become absolutely commonplace."

State Rep. David Dank, R-Oklahoma City, said he isn't willing to end the tax credits carte blanche. However, the well-known budget hawk said he would first want to understand what those in the industry need to continue investing in Oklahoma. Oil and gas producers receive about $100 million per year from tax rebates from horizontal drilling .

That kind of drilling is one main technological driver in the oil and gas boom in Oklahoma and across the nation. Blatt said that because oil and gas are so important to the state's economy, few legislators want to be seen as unsympathetic to the industry. He said that an adequate and fair tax system can't ignore rebates given to that industry.

The Oklahoma Independent Petroleum Association disagreed in a statement, writing that the credits were important to continue investment. Mike Terry, OIPA president, wrote that tax provisions have attracted new business to the state. Reduction of those benefits would limit the number of wells drilled, he wrote. Senate Energy Chairman and state Sen. Cliff Branan, R-Oklahoma City, said in an email that because the oil and gas industry contributes so much to the Oklahoma economy, caution should be used when examining tax policy related to that industry.

Dank said he likes Blatt and appreciates the work the OPI does, but they disagree fundamentally on some issues. Dank said he didn't need a report to know the state Legislature needs to have a meaningful discussion with the oil and gas industry about what tax incentives are necessary to continue investing in Oklahoma. "Maybe the depletion allowance is too large, I don't know yet," Dank said. "Those are things we need to know." The most important thing is to ensure that Oklahoma companies don't leave for Houston.

Referencing Devon Energy Corp.'s recent announcement that it would close its Houston office and move hundreds of employees to Oklahoma City, Dank said he wants more investment in the oil and gas industry in the state.

Richard Spears, managing director of Tulsa-based Spears and Associates: Combining drilling techniques could lead U.S. to energy independence

Journal Record, The (Oklahoma City, OK) - Tuesday, October 23, 2012
Author: D. Ray Tuttle

Combining innovations in the exploration and production sector of the oil and natural gas industry could lead the United States to energy independence, said Richard Spears, managing director of Spears and Associates.

Spears, founder of the Tulsa-based business that provides analysis, forecasts and market research to the petroleum equipment and service industry, gave a 30-minute address to about 500 people during the Friends of Finance luncheon Tuesday in the Great Hall of the Allen Chapman Activity Center on the University of Tulsa campus.

"We are a small family business," Spears said, in a self-deprecating manner. "We do not drill holes in the ground; we provide equipment for the companies that drill holes in the ground."

Spears and Associates began in a Tulsa garage in 1965 and today serves petroleum equipment manufacturers, oil-field service firms, financial institutions and research groups around the world. Spears focused on the two greatest technology innovations in the drilling industry over the past six decades.

Spears started by telling of a spring evening in 1981, when he was a young worker with Halliburton in

Enid.

“We went around to the drilling rigs in Garfield County to see how the rig was doing,” Spears said. “We needed to know how deep the well was, because once the well reached a certain depth, they called Halliburton, got a cement truck out there to cement the well.”

On this particular day, there were more than a few people on the rig floor, Spears said.

“When I arrived, I asked one of the men, ‘Where is the bottom of the well right now?’” he said. “And he points and says, ‘It is over in that pasture there.’”

It was Spears’ introduction to horizontal drilling .

“I thought he was jerking my chain,” Spears said. “I did not realize it at the time, but Arco was drilling one of the first horizontal wells.”

The technology caught on as producers quickly learned that a horizontal well offered thousands of feet of exposure to underground formations containing natural gas.

Spears told how the oil and gas industry spent a lot of money through the 1980s developing the technology with great success.

And while natural gas production soared, oil production continued to slide in the United States.

“Something else besides drilling sideways was needed to get gas out of the rocks,” Spears said.

Another technology, hydraulic fracturing , had already been in use since the 1940s. It was used on vertical wells for decades, but it was not until the last decade that someone thought to use the technique on horizontal wells in shale rock formations.

At the same time, the energy industry suffers boom and bust cycles, Spears said.

“The oil field goes through booms and busts, and we work so hard in boom times that we do not think about what we are doing,” Spears said. “During the busts, we sit and do nothing.”

The industry suffered busts in 1999, 2002 and 2003, but in 2004 somebody thought to combine the two technologies – horizontal drilling and hydraulic fracturing , or frac jobs – and applied them to the hard, brittle rock formations known as shale formations.

Beginning in 2004, natural gas production jumped as companies exploited the Austin Chalk formation and Barnett Shale in Texas, the Fayetteville Shale in northwest Arkansas, and the Woodford shale in eastern Oklahoma.

“Meanwhile, oil was declining,” Spears said. “Domestic production fell while imports rose.”

Companies drilled and drilled until there was another glut of natural gas, and then the economy imploded in 2008.

“The economy collapsed and everybody went into a timeout, for a while,” Spears said. “Then, in 2010, somebody thought about using these technologies on oil production.”

Spears produced a package of a popular brand of peanut butter and chocolate candy, talking about how combining two good flavors created a fantastic new product.

And in the last two years, 50,000 wells have caused U.S. oil production to rise 25 percent.

“Oil had been declining for 35 years and in two years, that trend was reversed and production rose 25

percent," Spears said.

By putting the two technologies together, the industry had created something even more valuable, Spears said.

"And we cannot allow the state or federal government to take away these tools we have, or we are doomed to endure declining energy resources," Spears said.

Spears was a last-minute substitution at the Friends of Finance luncheon. Originally, the new TU President Geoffrey Orsak was slated to speak. But Orsack was fired after only 74 days in office.

GAO Hints At EPA Path On Drilling Waste But Requires Congress ' Approval

Posted: October 29, 2012 Follow Clean Energy Report

The Government Accountability Office (GAO) is suggesting that EPA may take a piecemeal regulatory approach if it decides to grant environmentalists' call to regulate currently exempted drilling wastes under the Resource Conservation & Recovery Act (RCRA), but the office is backing industry calls that EPA must first win congressional approval before a new rule can take effect, creating a "significant obstacle" for agency action.

In its Oct. 9 report on EPA's authorities to oversee hydraulic fracturing, "Unconventional Oil and Gas Development: Key Environmental and Public Health Requirements," GAO signals that EPA, in its response to environmentalists' petition, may be considering agreeing to revisit the agency's 1988 finding that drilling wastes should not be regulated, given that the report lists the RCRA exemption among key challenges to federal oversight of shale gas and oil development.

The report says that if EPA were to repeal or narrow the current RCRA exemption for drilling wastes as environmentalists are seeking, it would not subject all drilling wastes to blanket hazardous waste regulation under RCRA subtitle C, but the agency would have to determine on a case-by-case basis which byproducts meet the characteristics of hazardous waste, such as ignitability, corrosivity, reactivity and toxicity.

"Should the exemption be lifted, not all exploration and production wastes would necessarily be hazardous," GAO says. "Rather, whether particular exploration and production wastes would be hazardous and subject to regulation would depend on whether those particular wastes meet the regulatory definition of hazardous (i.e., are a listed waste or exhibit a characteristic of hazardous waste)," the report says.

An industry attorney said that if EPA were to adopt a "wastestream by wastestream" approach, the burden would be on industry to show that a certain byproduct did not meet any of the four criteria for regulating wastes under RCRA and therefore the exemption should be kept in place.

"It may be that a lot of wastes" do not meet that criteria, the source adds, saying that EPA's 1988 finding that [exploration and production] E&P wastes generally have low toxicity should "still hold true now," but that the difference is that advances in hydraulic fracturing technology have led to much higher volumes of those wastes.

However, GAO is also warning that "Under the key RCRA provision, the regulations would not become effective until authorized by Congressional action."

Environmentalists, some of whom share GAO's assessment, say such a requirement sets a high bar for agency action, though they note that it has not deterred groups from petitioning the agency to act to repeal the waiver.

A divided Congress is likely to pose a significant obstacle to any EPA effort to subject some wastes to subtitle C regulation, given that both chambers would need to sign off on any changes to the 1988

exemption, one activist says.

2010 Petition

In an effort closely watched by the oil and gas industry, EPA is weighing a 2010 petition from the Natural Resources Defense Council (NRDC) urging the agency to reconsider its 1988 regulatory determination that E&P wastes should not be regulated as hazardous wastes under subtitle C of RCRA.

The group argued that EPA should reconsider the determination in light of the toxicity of the waste, the failure of states to adequately regulate the disposal of the waste and the recent boom in oil and gas production from hydraulic fracturing. And the factors EPA used to justify the original exemption -- the infeasibility of regulations, the adequacy of state regulations and the economic harm rules would cause industry -- are no longer true, the group said.

One concern that environmentalists have raised since the petition was filed is that EPA's RCRA determination resulted in the agency regulating underground disposal of wastewater from drilling as lesser-regulated Class II underground injection control (UIC) wells, which do not consider potential seismic effects, rather than more strictly regulated Class I wells, which require regulators to consider seismic impacts when siting wells.

This has been a special concern in Ohio where injection of fracking wastewater in Class II wells resulted in earthquakes, prompting intensified calls from environmentalists for EPA to reverse the exemption.

The requirement for EPA to win congressional approval stems from an amendment to RCRA offered by then-Sen. Lloyd Bentsen (D-TX). The amendment, one of several addressing high-volume, low-toxicity wastes, required EPA to determine whether these wastes should be regulated. Another, offered by then-Rep. Tom Bevill (D-AL), required EPA to make a similar determination about coal ash and ore mining waste.

But the Bentsen amendment contains language absent from the Bevill provision, a second environmentalist says, that industry argues would bar any regulatory changes to the exemption from becoming effective absent congressional approval. That language says, "Such regulations shall take effect only when authorized by Act of Congress" and that any regulatory determination made by EPA on E&P wastes must be submitted to both chambers for approval.

"Though it is possible that EPA could reverse its 1988 determination, federal law requires the EPA submit its decision along with any regulations to Congress for its approval before such regulations take effect," Oklahoma Independent Petroleum Association said in an October 2010 statement.

But NRDC's petition is silent on whether EPA must seek congressional authorization before any new rules take effect. Instead, the group argued in its petition that nothing in RCRA prevents EPA from reconsidering its 1988 regulatory determination.

NRDC cited the 1996 ruling in American Portland Cement Alliance, et al v. EPA, where the U.S. Court of Appeals for the D.C. Circuit upheld EPA's authority to reconsider regulatory determinations made pursuant to the 1980 amendments. "Moreover, statements made by EPA in its 1988 Regulatory Determination indicate that EPA never intended the regulatory determination to be its final word on E&P waste," NRDC says.

It also charged that EPA has failed to fully implement a three-part plan for addressing E&P wastes that it issued alongside its 1988 exemption. The plan called for improving federal programs under existing authorities in Subtitle D of RCRA, the Clean Water Act and Safe Drinking Water Act; working with states to encourage changes and improvements in their regulations and enforcement; and working with Congress to develop any additional statutory authorities that may be required. NRDC says that "To date this three-pronged plan has not been fulfilled."

NRDC in its petition argued that various types of E&P wastes exhibit several of the hazardous

characteristics and therefore should be regulated under Subtitle C. For example, the petition cites a California study in which 11 percent of oil sludges sampled were found to have a flash point that met or exceeded the regulatory threshold for showing ignitability. -- Bridget DiCosmo

Title: **DEGRADABLE FIBER SYSTEMS FOR STIMULATION**
Document Type and Number: United States Patent Application 20120267103 Kind Code: A1
http://www.freepatentsonline.com/y2012/0267103.html
Abstract: A method for minimizing the amount of metal crosslinked viscosifier necessary for treating a wellbore with proppant or gravel is given. The method includes using fibers to aid in transporting, suspending and placing proppant or gravel in viscous carrier fluids otherwise having insufficient viscosity to prevent particulate settling. Fibers are given that have properties optimized for proppant transport but degrade after the treatment into degradation products that do not precipitate in the presence of ions in the water such as calcium and magnesium. Crosslinked polymer carrier fluids are identified that are not damaged by contaminants present in the fibers or by degradation products released by premature degradation of the fibers.
Inventors: Willberg, Dean M. (Salt Lake City, UT, US)
Fredd, Christopher N. (Ashville, NY, US)
Bulova, Marina (Moscow, RU)
Application Number: 13/535584
Publication Date: 10/25/2012
Filing Date: 06/28/2012

Title: **Methods and Compositions for Consolidating Particulate Matter in a Subterranean Formation**
Document Type and Number: United States Patent Application 20120267114 Kind Code: A1
http://www.freepatentsonline.com/y2012/0267114.html
Abstract: Methods of treating a subterranean formation comprising first introducing a pre-flush fluid into a subterranean formation having particulate matter therein. Then introducing a curable adhesive composition comprising a silane coupling agent and a polymer, the polymer having a reactive silicon end group into the subterranean formation subsequent to the pre-flush fluid. Then introducing an aqueous post-fluid fluid into the subterranean formation subsequent to the curable adhesive composition. Then allowing the curable adhesive composition to at least partially consolidate particulate matter within the subterranean formation.
Inventors: Nguyen, Philip D. (Duncan, OK, US)
Rickman, Richard D. (Duncan, OK, US)
Weaver, Jimmie D. (Duncan, OK, US)
Desai, Bhadra (Duncan, OK, US)
Application Number: 13/533590
Publication Date: 10/25/2012
Filing Date: 06/26/2012

Title: **DOWNHOLE EXTENDING PORTS**
Document Type and Number: United States Patent Application 20120267122 Kind Code: A1
http://www.freepatentsonline.com/y2012/0267122.html
Abstract: A method and apparatus for centering and engaging a casing against a wellbore. The apparatus comprises a valve body locatable in-line with the casing the valve body having an outer casing extending between first and second ends and a central passage therethrough, and at least one radially movable body extending therethrough. Each radially movable body has an aperture therethrough so as to permit an exterior of the valve body and the central passage to be in fluidic communication with each other. The apparatus further comprises a cylinder and a piston therein operable connected to the radially movable body in selective fluidic communication with the central passage. The method comprises locating the valve body in line with a wellbore casing, pressurizing the casing with a pressurizing fluid and transmitting the pressurizing fluid the cylinder so as to displace a piston located therein and extend the radially movable body.
Inventors: George, Grant (Kelowna, CA)
Sargent, Shane (Kelowna, CA)
Application Number: 13/274761
Publication Date: 10/25/2012

Filing Date: 10/17/2011

Title: **Boron Crosslinkers For Fracturing Fluids With Appreciably Lower Polymer Loading**
Document Type and Number: United States Patent Application 20120270760 Kind Code: A1
http://www.freepatentsonline.com/y2012/0270760.html
Abstract: Fracturing fluid compositions and methods of fracturing subterranean formations using polyboronic compounds as crosslinking agents are provided. The compositions and methods of the present invention allow for lower polymer loadings because achieving higher fracturing fluid viscosities can be achieved using less polymer than in traditional crosslinked systems.
Inventors: Sun, Hong (Houston, TX, US)
Qu, Qi (Spring, TX, US)
De Benedictis, Frances (Spring, TX, US)
Pardue, Jerry Edwin (Sugar Land, TX, US)
Application Number: 13/458753
Publication Date: 10/25/2012
Filing Date: 04/27/2012

Title: **Control of Particulate Entrainment by Fluids**
Document Type and Number: United States Patent Application 20120267105 Kind Code: A1
http://www.freepatentsonline.com/y2012/0267105.html
Abstract: An aqueous slurry composition for use in industries such as petroleum and pipeline industries that includes: a particulate, an aqueous carrier fluid, a chemical compound that renders the particulate surface hydrophobic, and a small amount of an oil. The slurry is produced by rendering the surface of the particulate hydrophobic during or before the making of the slurry. The addition of the oil greatly enhances the aggregation potential of the hydrophobically modified particulates once placed in the well bore.
Inventors: Zhang, Kewei (Alberta, CA)
Application Number: 13/541249
Publication Date: 10/25/2012
Filing Date: 07/03/2012

Title: **WELL SERVICE COMPOSITIONS AND METHODS**
Document Type and Number: United States Patent Application 20120267112 Kind Code: A1
http://www.freepatentsonline.com/y2012/0267112.html
Abstract: A composition for isolating a zone in a wellbore comprising: an aqueous liquid hydrophobic solid particles, and an oil.
Inventors: Zhang, Kewei (Calgary, CA)
Cao, Shandong (US)
Application Number: 13/392423
Publication Date: 10/25/2012
Filing Date: 09/03/2010
View Patent Images: Download PDF 20120267112 PDF help
Export Citation: Click for automatic bibliography generation
Assignee: TRICAN WELL SERVICE LTD. (Calgary, AB, CA)
Primary Class: 166/308.1
Other Classes: 507/219, 507/246
International Classes: C09K8/60; E21B43/26

Title: **METHODS AND COMPOSITIONS FOR ENHANCING GUAR HYDRATION RATES AND PERFORMING GUAR DERIVATIZATION REACTIONS**
Document Type and Number: United States Patent Application 20120270759 Kind Code: A1
http://www.freepatentsonline.com/y2012/0270759.html
Abstract: Methods are provided that include, but are not limited to, methods of treating guar splits comprising: exposing guar splits to a treatment chemical to create treated guar splits, wherein the treatment chemical comprises at least one treatment chemical selected from the group consisting of: an aqueous salt solution; a caustic solution, and a derivatizing agent; and grinding the treated guar splits to create ground, treated guar splits.
Inventors: Weaver, Jimmie D. (Duncan, OK, US)

Hanes Jr., Robert E. (Austin, TX, US)
Slabaugh, Billy (Wichita Falls, TX, US)
Slabaugh, Tommy (Wichita Falls, TX, US)
Application Number: 13/544529
Publication Date: 10/25/2012
Filing Date: 07/09/2012

Title: **Application of Degradable Polymers in Sand Control**
Document Type and Number: United States Patent Application 20120267101 Kind Code: A1
http://www.freepatentsonline.com/y2012/0267101.html
Abstract: Degradable polylactic or polyhydroxyalkanoate polymers may be used to viscosify aqueous fluids for use in wells, Sand control screen or liner can be coated with a solid degradable polymer during placement in a well. Mechanical changes or flow changes in a well can be caused by solid degradable polymer that changes physical properties after it is placed in a well. Parts of devices or entire devices can be made of solid degradable polymer that converts to a fluid after selected times in an aqueous environment in a well.
Inventors: Cooke Jr., Claude E. (Montgomery, TX, US)
Application Number: 13/543321
Publication Date: 10/25/2012
Filing Date: 07/06/2012

Title: **DRILL BIT FOR BORING EARTH AND OTHER HARD MATERIALS**
Document Type and Number: United States Patent Application 20120267173 Kind Code: A1
http://www.freepatentsonline.com/y2012/0267173.html
Abstract: A drill bit for drilling a hole through earth and hard materials, the drill bit including a bit body having an inner bore and a cutting head at a cutting end, the cutting head including a center portion with one or more apertures extending from the cutting end to the inner bore, a perimeter portion projecting radially outward to form a plurality of blades divided by a plurality of junk slots, a cutting face, and a plurality of cutter receptacles spaced about the cutting face. A plurality of cutters with cutter tips terminating in points are in mounted into the cutter receptacles at a pitch angle relative to the cutting face, and with the plurality of cutter points together defining a projected cutting surface.
Inventors: Jones, Mark L. (Draper, UT, US)
Curry, Kenneth M. (South Jordan, UT, US)
Application Number: 13/455833
Publication Date: 10/25/2012
Filing Date: 04/25/2012

Title: **System and Method for Improved Propped Fracture Geometry for High Permeability Reservoirs**
Document Type and Number: United States Patent Application 20120267104 Kind Code: A1
http://www.freepatentsonline.com/y2012/0267104.html
Abstract: Systems and methods for improved propped fracture geometry for high permeability reservoirs are provided. In one embodiment, a method of determining a pad volume and proppant volume for fracturing a subterranean formation is provided comprising selecting a proppant volume for placement in a fracture to be created in a subterranean formation; determining a desired fracture geometry for the fracture; calculating a pad volume sufficient to create the desired fracture geometry in the subterranean formation at a lower fluid efficiency value; calculating a fracture length that would result from injecting the pad volume into the subterranean formation at an upper fluid efficiency value; calculating a fracture width that corresponds to the calculated fracture length; and calculating a proppant volume sufficient to fill a fracture having the calculated length and width.
Inventors: Clarkson, Brad A. (Fulshear, TX, US)
Fitzpatrick, Harvey J. (Katy, TX, US)
Application Number: 13/089847
Publication Date: 10/25/2012
Filing Date: 04/19/2011

Title: **TREATMENT OF WASTEWATER**
Document Type and Number: United States Patent Application 20120267315 Kind Code: A1

http://www.freepatentsonline.com/y2012/0267315.html
Abstract: The invention encompasses systems and methods for removing contaminants from an aqueous stream using systems and methods that add treatment agents comprising anchor particles and tethers, with optional activating agents or activators.
Inventors: Soane, David S. (Chestnut Hill, MA, US)
Mahoney, Robert P. (Newbury, MA, US)
Slattery, Ian (Cambridge, MA, US)
Application Number: 13/450815
Publication Date: 10/25/2012
Filing Date: 04/19/2012

Title: **SPECIALIZED LINED LANDFILL SYSTEM FOR THE STABILIZATION AND CONTAINMENT OF DRILLING WASTES AND COAL COMBUSTION RESIDUES**
Document Type and Number: United States Patent Application 20120271091 Kind Code: A1
http://www.freepatentsonline.com/y2012/0271091.html
Abstract: Systems and methods of the present invention include a method for the treatment of drilling wastes and coal combustion residues, comprising combining at least a first drilling waste with coal combustion residues to form a paste, combining at least a second drilling waste with coal combustion residues to form a compactable fill, and placing the paste and the compactable fill in a landfill. Other embodiments include a method of treating drilling wastes and coal combustion residues, comprising combining at least one drilling waste with a coal combustion residue to form a paste. Further embodiments include containing the paste within at least one geotextile container. Still further embodiments include placing the geotextile container in a landfill.
Inventors: Manno Jr., James Joseph (Brookville, PA, US)
Manno, Jacqueline Lilja (Brookville, PA, US)
Application Number: 13/452269
Publication Date: 10/25/2012
Filing Date: 04/20/2012

Fluor to provide engineering services on Alberta oil sands project
Penn Energy 10/30/2012
http://www.pennenergy.com/articles/pennenergy/2012/10/fluor-to-provide-engineering-services-on-alberta-oil-sands-project.html?cmpid=EnlDailyPetroOctober302012
Fluor has been awarded a contract by Suncor Energy to provide services on the energy company's MacKay River Phase 2 oil sands project.

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